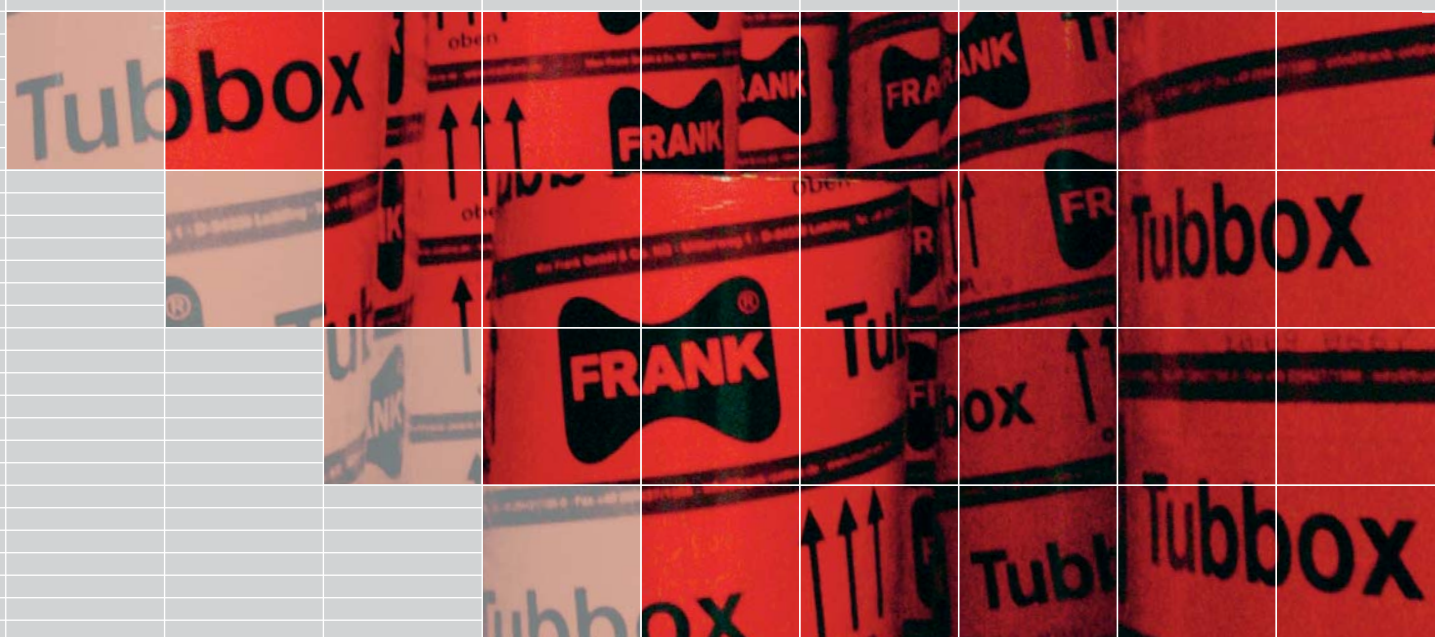


FRANK | Technologies for the construction industry



Tubbox[®] & Fratec[®]

Column Formers and special formwork systems





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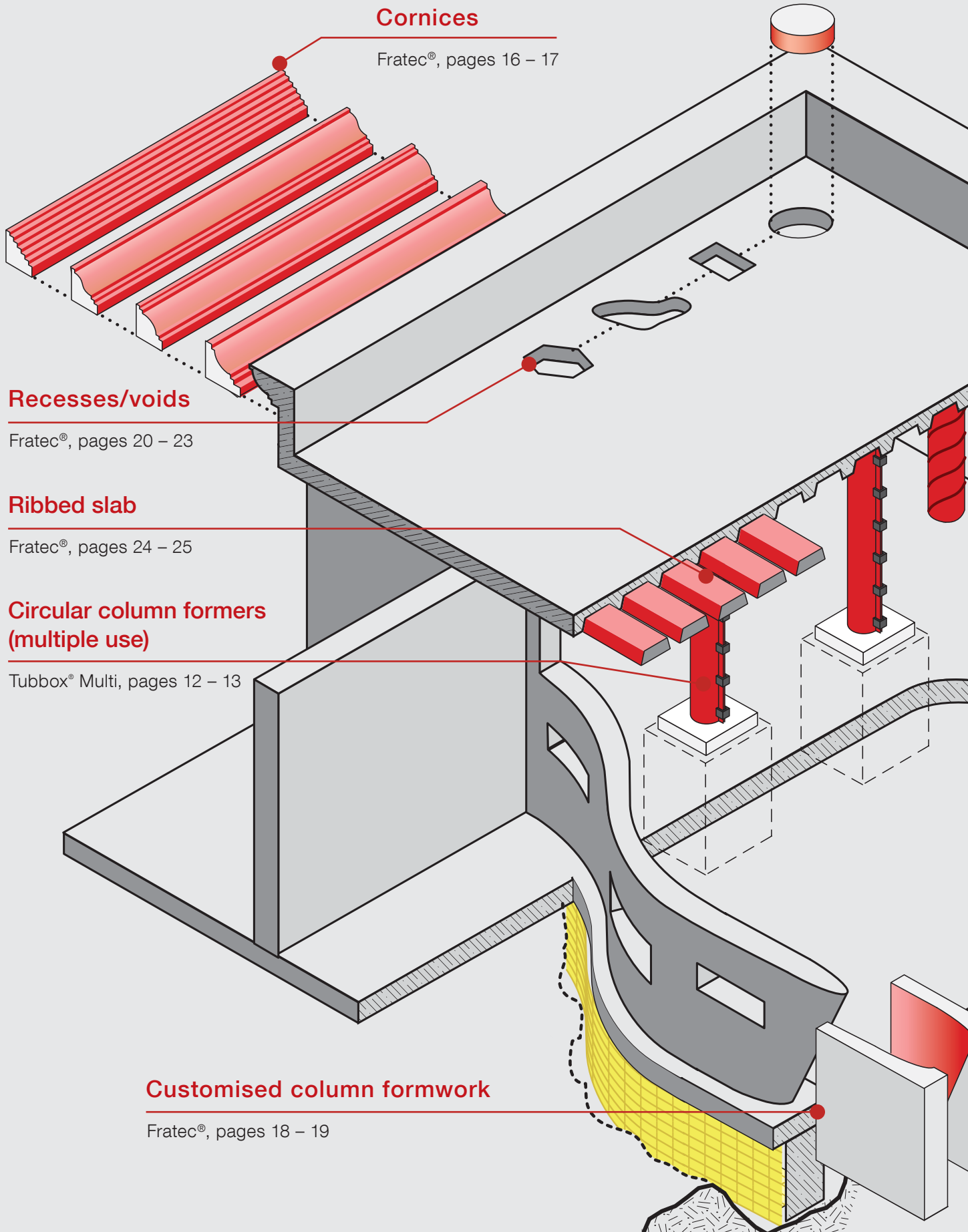
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Cornices

Fratec®, pages 16 – 17

Recesses/voids

Fratec®, pages 20 – 23

Ribbed slab

Fratec®, pages 24 – 25

**Circular column formers
(multiple use)**

Tubbox® Multi, pages 12 – 13

Customised column formwork

Fratec®, pages 18 – 19

Columns

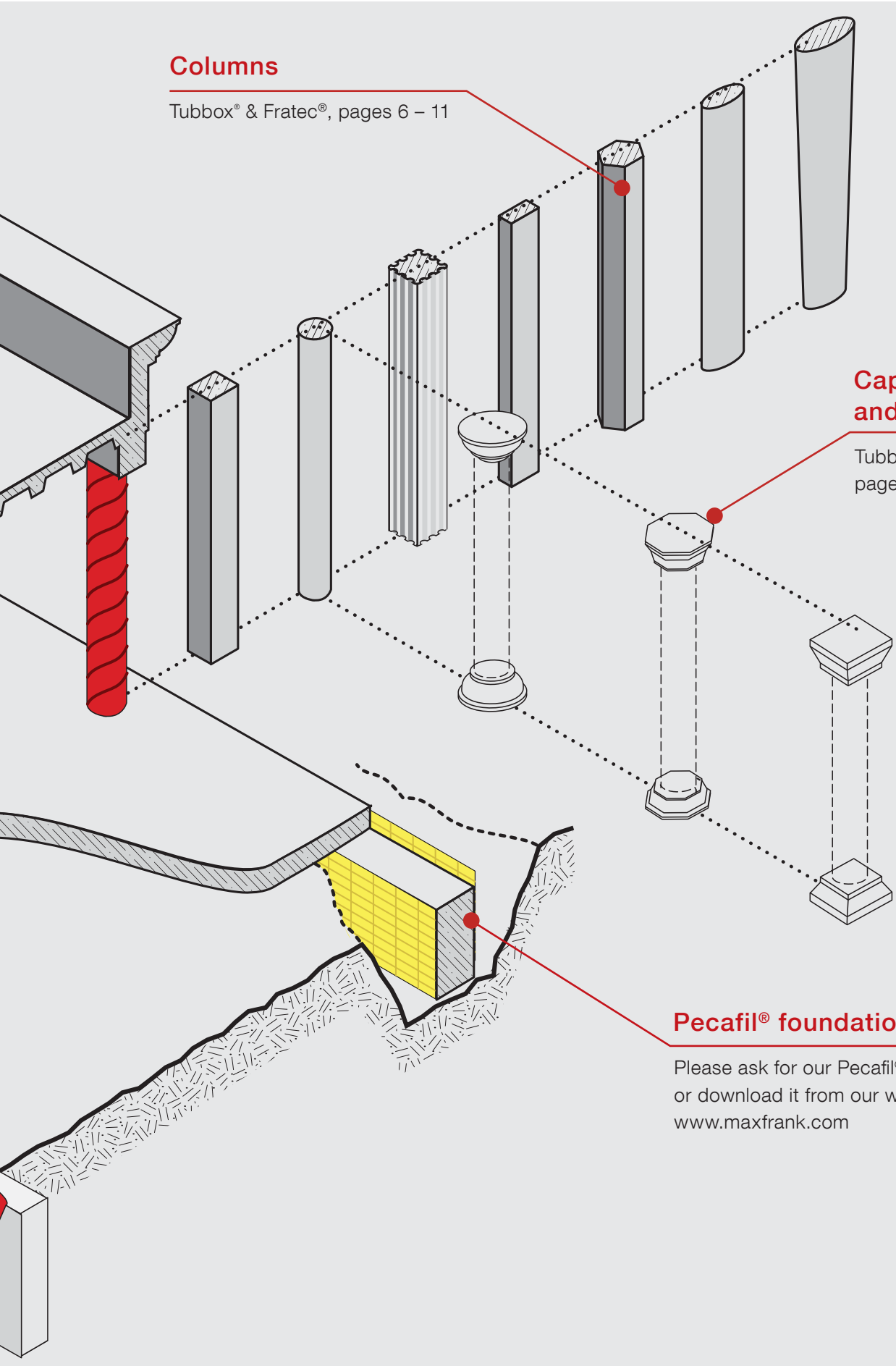
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Capitals and bases

Tubbox® & Fratec®, pages 14 – 15

Pecafil® foundation formwork

Please ask for our Pecafil® brochure or download it from our website:
www.maxfrank.com





Unlimited creativity

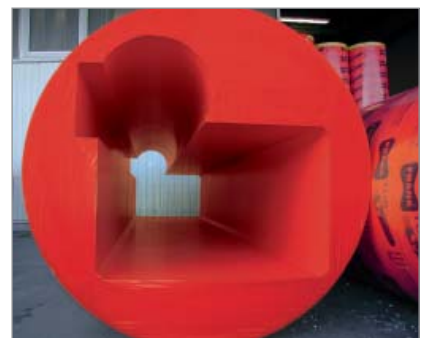
FRANK column formers can be used to create columns of virtually any geometrical shape. If you are looking for – round, square, octagonal or irregular shapes – our wide product range gives you scope for imaginative design.

Combining the use of Fratec® with Tubbox® column formers means that the column, capital and base can be designed and produced together.

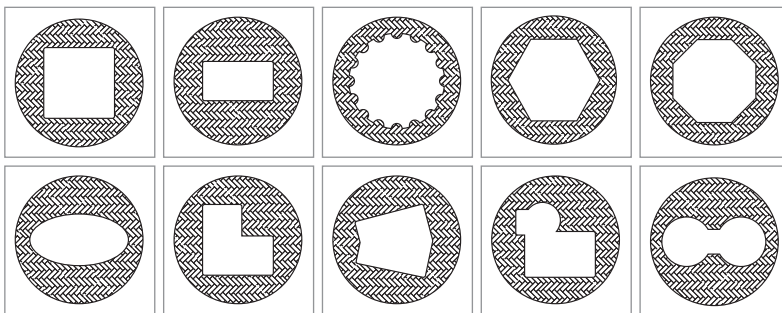
The huge variety of available formwork shapes offers the designer almost unlimited design possibilities.

Tubbox® column formers can be easily opened up using the in-built rip-cord and then rapidly removed or left in place as temporary protection. Full handling and installation guidelines are supplied with each former.

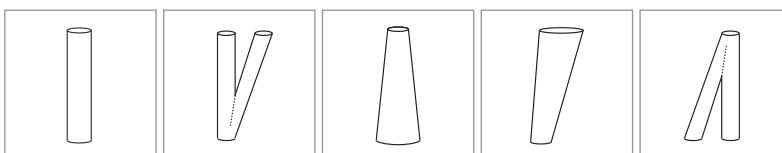
Tubbox® and Tubbox® Multi column formers from FRANK offer you a low-cost alternative to conventional formwork systems!



Top view:



Lateral view:



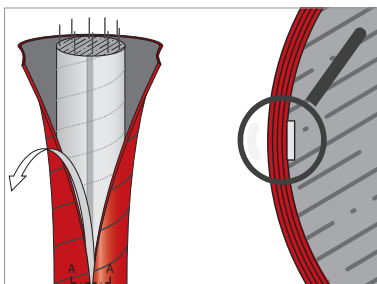
Need to produce multicoloured concrete elements? – then use Fratec®. Using colour pigmented concrete is possible for most shapes and applications.



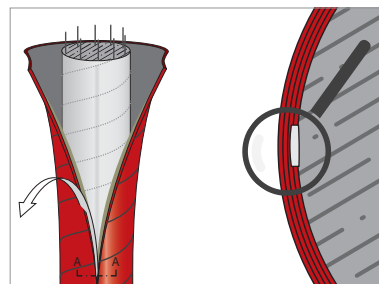
Tubbox® Surface finish options

We offer several options for the surface finish to your circular concrete columns.

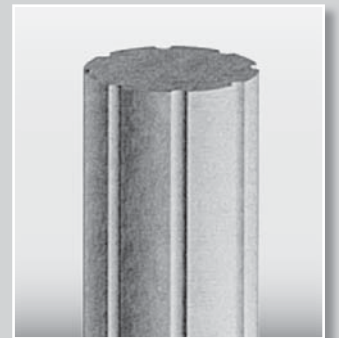
- **Spiral:** standard quality finish with some random blowholes and slight imprinting of the spiral former.
- **Spiral Plus:** With in-built rip cord that does not impact on the concrete surface. Standard quality finish with some random blowholes and slight imprinting of the spiral former.
- **Lined:** Smooth high quality finish with minimal random blowholes and the visible imprint of the single vertical joint.
- **Blowhole-free:** virtually blowhole and blemish free high quality matt finish with the visible imprint of the single vertical joint.
- **Profiled:** good quality patterned/profiled finish.



Spiral



Spiral Plus



All shapes feature a clear profile

Individually manufactured Tubbox® column formers allow for production of profiled columns of virtually any shape.

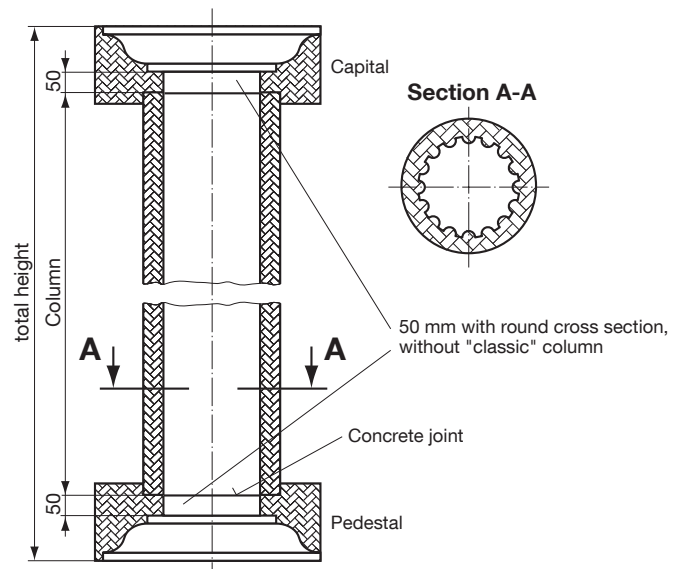
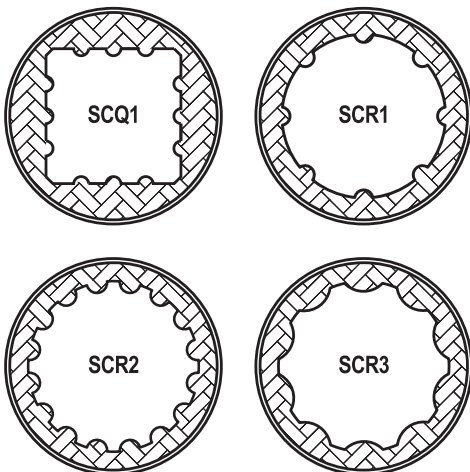
Light and shadow effects on a structural surface make a feature of the character of the “support” component.

No matter whether you require polygonal capitals, unusual column shapes and bases or special shapes with textured surfaces – we will supply any solution tailor made to your ideas.

Lightweight, easy to handle formwork, without the use of release agents, that can be easily assembled and dismantled, are just some of the decisive benefits of this formwork system. Furthermore, it is easy for multiple columns to be concreted sequentially, speeding up the construction cycle.



Plan view “Classical” structure





Multiple Use with Tubbox® Multi

The principal benefit of using Tubbox® Multi circular-column formers is the potential for a very high number of reuses. This makes Tubbox® Multi a very economical alternative to conventional formwork systems.

Benefits of using Tubbox® Multi:

- Repeat use saves money
- High surface quality finish, similar to Tubbox® “lined version”
- Only one vertical seam is produced at the joint in the former
- Low freight and storage volume
- Lightweight for transport and handling on site
- One type of tightener suitable for all diameters – no confusion on site
- Can easily be cut to length on site
- Simple formwork stripping
- Low amounts of waste during formwork operations
- All diameters ≥ 250 mm are possible

Ideal for use in refurbishment projects

Tubbox® Multi circular-column formers are ideal for reprofiling/upgrading of existing columns:

- Tubbox® Multi solves the problem of encasing columns between existing top and bottom slabs.
- Suitable for use in strengthening of existing columns in old buildings to support increased floor loadings etc.
- Easy handling in confined spaces
- Suitable for encasing existing steel columns
- Visual improvement of existing columns is achievable
- Enhanced structural stability



Pumping concrete from the base to ensure a high quality surface finish



A complete column can be produced in only one concrete pour

As well as offering you a standard range of capital and base formers, we can individually manufacture our Fratec® formwork to produce a shape to suit your needs.

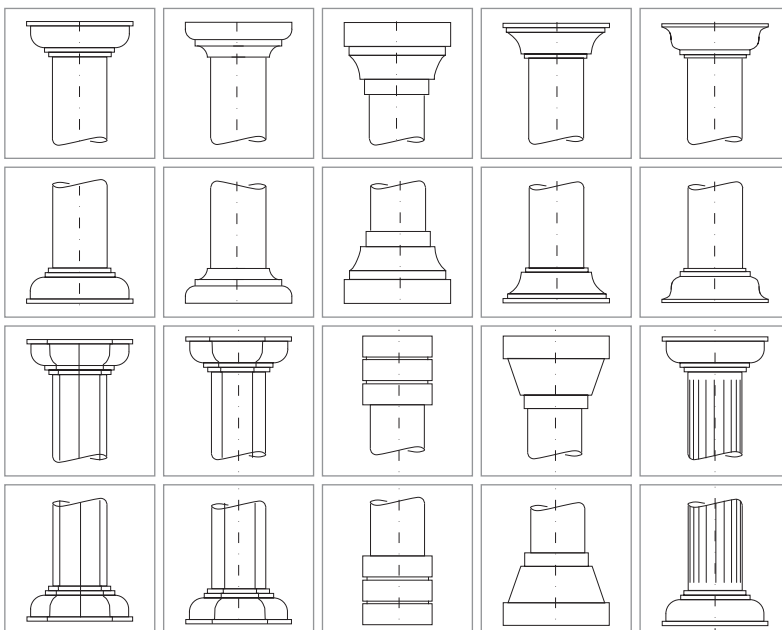
You design – we deliver the appropriate solution.

A column including capital and base can be produced in only one concrete pour – complicated timber formwork is no longer required.

Install. Concrete. Strip. Finish.



Product range of capital and base shapes, different shapes are available upon request.





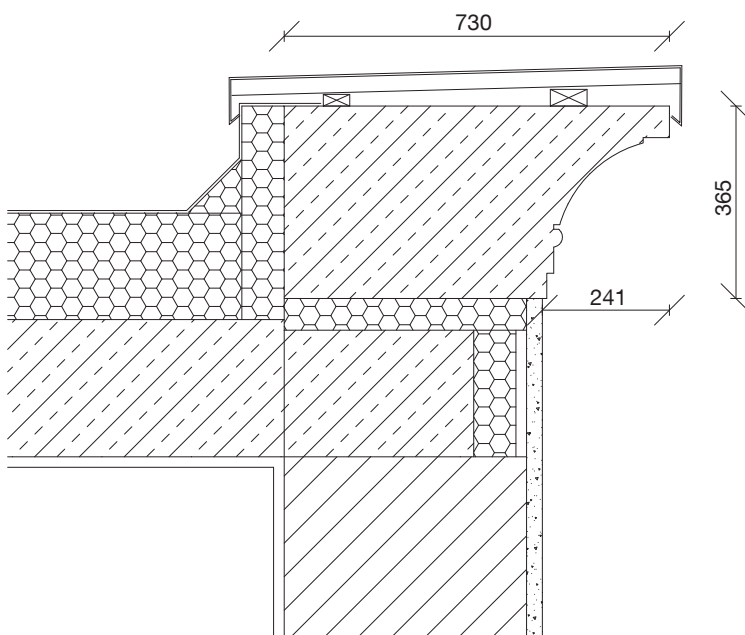
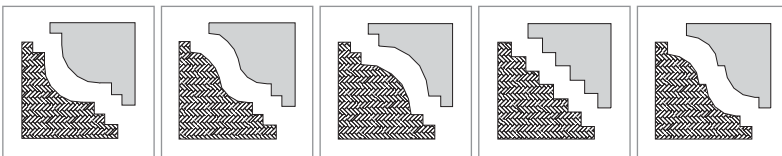
Unique cornices

Whether you require profile formwork for roof cornices or all-round wall cornices for internal or external use – your ideas will become a reality with FRANK products. Coloured pigments mixed in the concrete can create special effects and increase visual impact.

Using Fratec® special formwork systems for cornices gives a unique appearance to the façade:

- The required profile formwork ready for installation
- All cornice shapes available in different sizes
- Matching shape for formwork and cornice, also available in curved sections
- With integrated weather drip for external use
- Slab and wall cornice are produced in one concrete pour
- Formwork in accordance with the requirements in the exposed concrete instruction sheet, exposed concrete class SB3 (German Standard)
- Preformed cornice mould includes a protective form coating

Moulding formwork for interior application (with weather groove for external application) – additional shapes are available upon request:



Send us your drawing and we supply the complete formwork ready for erection.



Special shapes

Round, square, 2D or 3D, multiple sided and very expressive special shapes with intricate design details can all be produced in a very simple way.

Fraterc® can be supplied to site:

as a completely independent formwork system (requiring minimal site support) or in a format requiring a complete system of in-situ supporting formwork (supplied separately).

Our technical department can assist you in turning your visions based on dimensioned drawings into real shapes (also with textured or profiled surfaces).

We can assist you in developing unique ideas. We can supply virtually any form, size and shape.





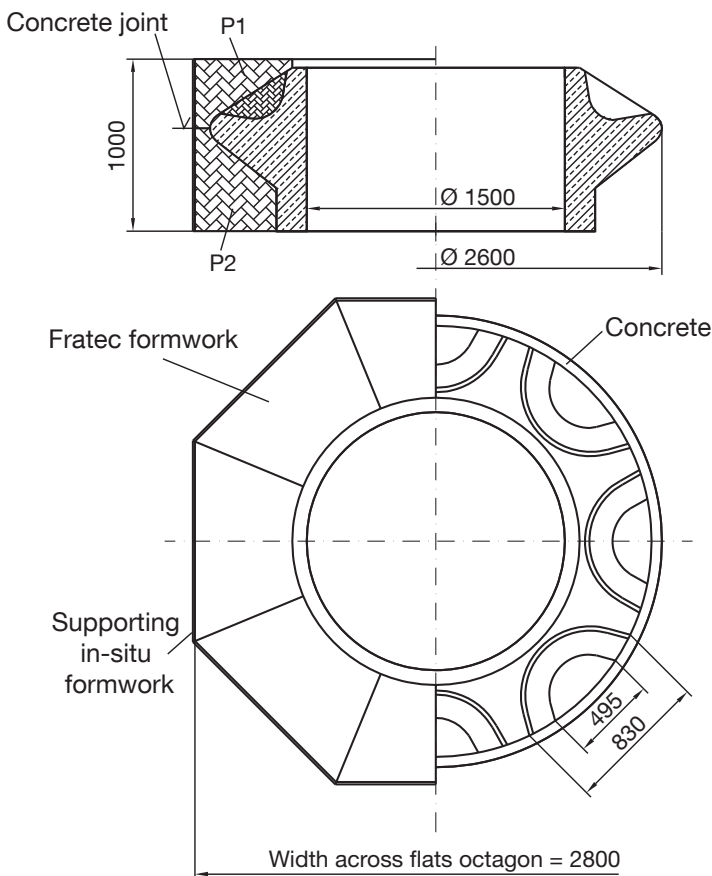
Individually designed recess formers

Recesses in walls or slabs are required both for precast elements and for in-situ construction, for installation of wall openings, dome lights, round windows, built-in illuminators, columns etc.

The precisely fitting Fratec® formers enable the production of the required recesses – complicated formwork erection using conventional formwork elements is avoided.

These lightweight formers are delivered to site ready for installation and are fixed to the conventional formwork. After curing of the concrete the recess formers can be easily removed without damaging the concrete.

Fratec® enables intricately designed concrete surfaces to be produced in various colours. The desired optical effect is achieved by using recess formers for the first pour and different colours of concrete for the second pour.





The formwork for your creativity

Fratec® is the solution for the creation of a diversity of special shapes. It allows architects and planners to give free rein to their creative ideas. Our technical department will be happy to support you in implementing your ideas.

Leverage the benefits of our Fratec® formwork elements:

- Design according to your requirements
- Design flexibility without taking into consideration formwork issues
- Delivery of fully assembled elements to the construction site
- Quick and simple installation of the formwork
- Lightweight – no crane must be used for the formwork erection and stripping
- Ready-to-install complete formwork
- Complements the conventional formwork provided by the customer
- Formwork in accordance with the requirements of the exposed concrete instruction sheet, exposed concrete class SB2 (GermanStandard)
- Release agents are not required





Fratec® for profiled floor slabs.

To produce ribbed or waffle floor slabs, prefabricated Fratec® formwork elements are laid directly on the soffit formwork, followed by the reinforcement and then the concrete. Due to the flexibility and formability of these formwork elements, the slab designer is not bound by any fixed slab module.

Depending upon individual requirements, Fratec® elements for ribbed slabs can be individually manufactured in a variety of different forms. Due to the variable dimensions of individual elements and the low weight, Fratec® is particularly suitable as formwork for slabs in the refurbishment of older buildings.

- Ready-to-install formwork elements with your requested profile
- Freedom to choose elements sizes without restrictions
- Flexible form of ribs
- Same shapes of form with different dimensions
- Easy handling and laying without lifting equipment
- Formwork elements comply with “Sichtbetonklasse 3” (exposed concrete class 3) in “Merkblatt Sichtbeton” (Code of Practice for Exposed Concrete, Germany)





Tubbox® circular-column formers are a cost-effective alternative to conventional steel column formers.

Fratec® formwork shapes offer an individual solution for the architectural design of any structural element, which enables architects and building owners to design their projects with unlimited creativity.

Tubbox® and Fratec® together offer the potential for a virtually unlimited range of formwork shapes and textures.

Tubbox® Multi circular-column formers offer the huge benefit of multiple uses and an ability to solve the unique problems of special applications such as reprofiling of columns made of reinforced concrete and encasing existing steel columns.

Advantages of Tubbox® column formers (single use):

- All columns can be cast in only one concrete pour
- Time-saving: delivery of completely pre-assembled formwork to the construction site
- Wide choice of diameters and lengths available
- Individually manufactured to site requirements
- Simple erection due to factory-applied markings
- Easy stripping due to integrated rip-cord
- Economical: cleaning and return transport of formwork not required
- Release agents are not required
- Easy transport and handling
- Simple disposal as recyclable waste (used cardboard)



Advantages of Tubbox® Multi column formers (multi use):

- Lightweight – no crane necessary
- Only one visible vertical seam is produced at the column circumference
- Low freight and storage volumes
- Easy to cut to length on site
- Quickly erected and dismantled
- Quick and simple stripping
- Reprofilling of existing columns between slabs



Advantages of Fratec® customised formwork shapes:

- Precisely dimensioned formwork delivered to site ready for use
- Optimal shaping
- Homogeneous concrete surface due to internal formwork lining
- Supplement to conventional formwork
- Release agents are not required
- Quick erection and stripping
- Easy transport and handling
- Economical: cleaning and return transport of formwork not required
- Simple disposal as recyclable waste
- Quick and uncomplicated manufacture to order





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